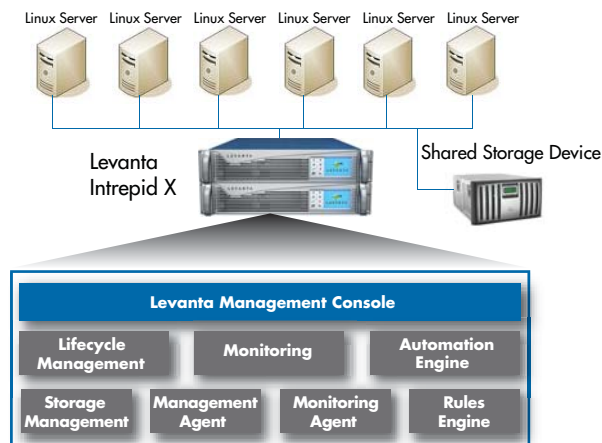# L E V A N T A

## Intrepid X
## Leveraging the power of virtualization & SAN

The Intrepid X brings enterprise-class reliability to your Linux systems by combining data virtualization technology with the speed and reliability of your existing SAN. The Intrepid X allows you to:

o Rapidly deploy or re-allocate server resources to increase compute capacity in response to spikes in demand

o Effortlessly perform backup and disaster recovery by consolidating the state of all systems on the SAN

o Provision an entire system, including OS, applications, and data, from one physical server to another, in minutes. Provision a block of systems just as easily.

o Move systems from physical to virtual, virtual to physical, or virtual to virtual in minutes, either via policy-driven automation or a simple manual drag-and-drop operation

o Manage many types of systems including blades, servers, workstations and virtual machines

o Automate recovery in the event of hardware failure, including roll-back/restore and migration to new hardware

o Perform rapid and simplified patch and package deployment and management



## Levanta's Unique "State-Based" Approach

What Levanta has done is to couple data virtualization with systems provisioning to offer an alternative method for achieving better Linux management. Levanta captures the state of a machine and everything about it using MapFS, a virtual file system technology, to keep track of the entire file system at all times. This "state-based" approach does away with the need for complex scripting procedures.

## Transactional System Management

This new methodology, which we call "Transactional System Management" manages system state changes as if they were data, with full versioning and integrity semantics. Transactional system management can work immediately with existing applications and processes, so users are not required to overhaul systems in order to get started.

## Checkpoints vs. Snapshots

Traditional full-scale system snapshots repeatedly copy the entire disk or changed blocks in what is known as a "block-level copy." In contrast, Levanta records multiple versions of a server's system state, called "checkpoints," which capture only the "delta" between a previous state and the newly updated one on a file-by-file basis. Checkpoints can be either manually controlled or set up at regular intervals. This provides constant, automatic updates of every change to any piece of data.

## Rapid Full-Stack Linux Provisioning

The user creatable and customizable template-based provisioning can be applied to existing systems or bare-metal hardware via a drag-and-drop user interface.

## Consolidate Linux Systems on SAN Storage

Consolidating your Linux systems on SAN storage simplifies backup, replication and archiving tasks. Levanta's data virtualization technology ensures SAN storage is used efficiently by sharing common files between systems.

## Cost-Effective SAN Access

The Intrepid X includes an integrated SAN-NAS gateway function. This capability means that systems provisioned and managed by the Intrepid X do not need to be attached to the SAN fabric directly, thereby reducing hardware capital expenditure.

## Intuitive User Interface

The Intrepid X software stack provides a sophisticated system dashboard showing the current state of all managed systems. Complex tasks such as provisioning hardware and rolling back file changes are achieved via simple GUI operations.

The Intrepid X also includes both a scriptable command-line interface and APIs, allowing for complete customization and integration into your current environment and interoperability with other management tools.

Using templates that you design, you can create custom system configurations that can then be easily applied to either a single system, group of systems or all managed systems via a drag and drop interface, allowing you to reprovision and repurpose systems on the fly.
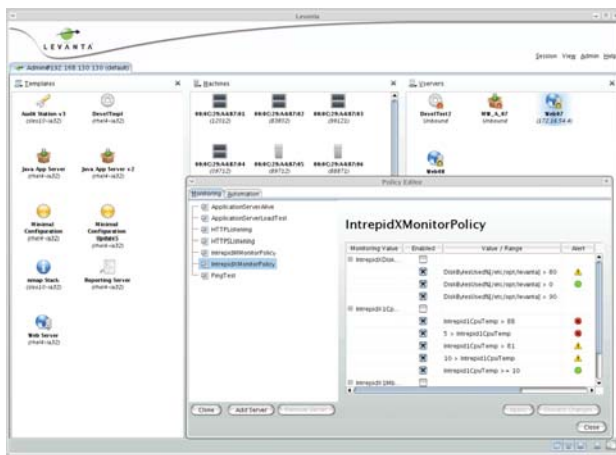


Intrepid Management Interface

## Single, Simple Management Console

The Intrepid X manages Linux running on a wide variety of system platforms including workstations, rack-mounted servers, diskless blades and virtual machines.

From the management console you can manually migrate from one platform to another - physical or virtual, or create a policy for automatic migration in case of system failure. You can rollback or restore any of the automatically check-pointed time-stamped events in the event of critical file or directory deletion or other filesystem error.

## Highly-Available Linux Management Solution

The Intrepid X incorporates unattended active-passive fail-over technology for the most highly-available Linux systems management solution available.

## About Levanta

Specialists in Linux data center automation, Levanta marries data virtualization technology with comprehensive Linux life-cycle management. Levanta's Linux data center automation solutions offer system monitoring, a configurable policy engine, and automated change control, delivering dramatically faster and more flexible control of Linux on both physical and virtual machines. Levanta's customers include industry leaders in e-commerce, new media, ISPs/ASPs/MSPs, financial services, education, and government. Levanta has partnerships with IBM, HP, Novell, and Red Hat. A private company, Levanta is headquartered in San Mateo, California.

## Change Control Everything

Levanta's revolutionary state-based change tracking tools will dramatically improve the way you troubleshoot, repair and update Linux systems by providing the following capabilities.

o  Track all changes made to all systems, at a file-level; viewing changes that have occurred over time is as simple as a few mouse clicks.

o  Roll-back undesirable change at a full-system level or perform partial roll-backs on a file-by-file basis with the ability to even perform roll-backs on unbootable systems.

o  Package configuration and application changes in industry-standard RPM format for reliable, repeatable deployments.

### Features

o  Manage up to 200 systems
o  Automatic hardware discovery
o  Cross-platform accessible Java based command console
o  Provision bare-metal servers in minutes
o  State-based, file level change tracking & management
o  Powerful, scriptable CLI and APIs
o  Real-time event monitoring
o  Automated distribution, installation and managment of patches and packages
o  Consolidated system state on your SAN for higher reliability and ease of recovery
o  Automatic, comprehensive and auditable change tracking for all files on managed systems
o  Customizable configuration templates allow you to design a system configuration once and then deploy to one or hundreds of systems

### Software Support

o  Red Hat Enterprise Linux, Novell SLES, Fedora Core and CentOS
o  Support for VMware server products

### SAN-Device Support

o  iSCSI SAN devices compatible with the Linux iSCSI Initiator
o  Fibre-Channel SAN compatible with Qlogic™ qla2xxx-series HBAs

### Hardware Specification

o  2x 2U, 19" rack mountable
o  Two 10/100/1000 Ethernet ports
o  Redundant hot-swap power supplies and drives

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